



## Monday, 13 May

7am **Registration - Short Course 101 and 301**  
*Pantlind Concourse (2nd level)*

7am **Breakfast - Short Course 101 and 301**  
*Ambassador Ballroom (2nd Level)*

8am **101a -  
SC 101- Introduction to Coal Combustion Ash**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Introduction to Coal Combustion Ash**  
» Lisa Burris

8am **301a -  
SC 301- Introduction**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Introduction**  
» PJ Nolan

8:15am **301b -  
SC 301- Geochemistry of CCP in the Subsurface**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Geochemistry of CCP in the Subsurface**  
» PJ Nolan and Jeff Frazier

8:35am **101b -  
SC 101- Lab Tests for Ash Characterization**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Lab Test for Ash Characterization**  
» Robert Rathbone

9am **301c -  
SC 301- Empirical Observations and Unresolved Questions on CCP  
Leaching: 40 years of EPRI Research**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Empirical Observations and Unresolved Questions on CCP  
Leaching: 40 years of EPRI Research**  
» Bruce Hensel and Lea Millet

9:10am **101c -  
SC 101- Coal Combustion Products**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Coal Combustion Products, i.e., scrubber materials**  
» Ann Palmer

9:45am **101d -  
SC 101- The Nature of Pondered Ash**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- The Nature of Pondered Ash**  
» Michael McCarthy

10am **301 Short Course - Coffee Break**  
*Pantlind Concourse (2nd level)*



Continued from **Monday, 13 May**

10:20am **101 Short Course - Coffee Break**  
*Pantlind Concourse (2nd level)*

10:30am **301d -  
SC 301- Introduction and Approaches to Modeling, Difference  
between Geochemical and Flow Modeling**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Introduction and Approaches to Modeling, Difference between  
Geochemical and Flow Modeling**  
» PJ Nolan and Cole Mayer

10:40am **101h -  
SC 101- Use of Coal Combustion Products in Cementitious Materials**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Use of Coal Combustion Products in Cementitious  
Materials**  
» Rod Jones

11:15am **101f -  
SC 101- Coal Combustion Ash Management Practices**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Coal Combustion Ash Management Practices**  
» Glenn Amey

11:15am **301e -  
SC 301- Modeling Attenuation and Reversibility**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Modeling Attenuation and Reversibility**

» Jim Finley, PJ Nolan, and Cole Mayer

12pm **101 and 301 Short Course - Lunch**  
*Ambassador Ballroom (2nd Level)*

12pm **Exhibit Hall Set Up**  
*Exhibit Hall A, B, C*  
Chaired by: Alyssa Barto and Brooke Pirmann

1pm **301f -  
SC 301- Uncertainty, Interpretation, and Application of Geochemical  
Modeling Results and Data**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Uncertainty, Interpretation, and Application of Geochemical  
Modeling Results and Data**  
» Jim Finley and Jeff Frazier

1:10pm **101g -  
SC 101- Technology for Beneficiation and Advanced Materials**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Technology for Beneficiation and Advanced Materials**  
» Nortey Yeboah

1:45pm **101e -  
SC 101- Techniques for Harvesting Poned and Landfilled Ash**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Techniques for Harvesting Poned and Landfilled Ash**  
» Paul Schmall



Continued from **Monday, 13 May**

1:45pm **301g -  
SC 301- Tools to Strengthen ASDs: Use and Misuse of Geochemical Evidence**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Tools to Strengthen ASDs: Use and Misuse of Geochemical Evidence**  
» Denise Levitan

2:20pm **101i -  
SC 101- Advanced Beneficiated Materials and Non-Cement Uses of Ash**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Advanced Beneficiated Materials and Non-Cement Uses of Ash**  
» Ben Gallagher

2:30pm **301h -  
SC 301- Geochemical Changes Observed at CCP Sites After Closure**  
*Imperial Ballroom (bank)*  
Chaired by: Dr. PJ Nolan

**Geochemical Changes Observed at CCP Sites After Closure**  
» Jeff Frazier and Denise Levitan

2:55pm **101 Short Course - Coffee Break**  
*Pantlind Concourse (2nd level)*

3pm **301 Short Course - Coffee Break**  
*Pantlind Concourse (2nd level)*

3:15pm **101j -  
SC 101- Utilization Trends in CCPs**  
*Pantlind Ballroom (gold)*  
Chaired by: Dr. Bob Jewell

**SC 101- Utilization Trends in CCPs**  
» Thomas Adams

3:30pm **301i -  
SC 301- Geochemistry for Key CCP Management Decisions and Closing Remarks**  
*Imperial Ballroom (bank)*  
Chaired by: Mr. Cole Mayer

**Panel Discussion - Geochemistry for Key CCP Management Decisions and Closing Remarks**

5pm **Welcome Reception**  
*Exhibit Hall C*

**Tuesday, 14 May**

7am **Breakfast**  
*Exhibit Hall C*

7am **Registration**  
*Outside of Ramme*

7am **Exhibit Hall Open**  
*Exhibit Hall A, B, C*  
Chaired by: Alyssa Barto and Brooke Pirmann



Continued from Tuesday, 14 May	
8am	<b>Plenary Session</b> <i>Ballrooms B, C, D</i> Chaired by: Mr. Thomas Adams and Mr. John Ward
	<b>WOCA 2024 Plenary Presentations</b> » Grant Quasha and Ed Sullivan
8:30am	<b>CLOSED Meeting – MCAA</b> <i>Chase Boardroom</i>
10am	<b>Coffee Break</b> <i>Exhibit Hall C</i>
10:30am	<b>Beneficiation and Processing 1 - Beneficiation and Processing 1</b> <i>Caylor Room</i> Chaired by: Katherine Coco
10:30am	<b>Path Forward to CCR Conveyor Solutions</b> » <a href="#">Mr. Michael Peden</a> , <a href="#">Mr. Don Fuller II</a>
11am	<b>THE LEGACY ASH RULE: CAN BENEFICIAL REUSE BE A SOLUTION?</b> » <a href="#">Mr. Tom Kierspe</a>
11:30am	<b>Planning for the Future of Beneficial Use</b> » <a href="#">Mr. Gabe Lang</a> , Mr. Don Fuller II, Mr. Nortey Yeboah
10:30am	<b>Emerging Technologies 1 - Emerging Technologies 1</b> <i>McKinley Room</i> Chaired by: Mr. David Bardsley
10:30am	<b>Streamlining CCR Compliance using a Groundwater Data Management System</b> » <a href="#">Mr. Travis Clark</a>
11am	<b>Implementing automation and SMART pumping systems in CCR projects for improved water collection, treatment, and discharge</b> » <a href="#">Mr. Dave Donahue</a> , Mr. Faizan Chowdhury
11:30am	<b>Ash Beneficiation in the Production of Waste Liner Materials</b> » <a href="#">Mr. Cyril Attwell</a> , <a href="#">Dr. Kelley Reynolds-Clausen</a> , Ms. Phenyo Mvuyana
10:30am	<b>Regulatory Issues 1 - Regulatory Issues 1</b> <i>Cain Room</i> Chaired by: Ms. Susan Jackson
10:30am	<b>Navigating Challenges Presented by State CCR Regulations</b> » <a href="#">Mr. Brian Hennings</a> , <a href="#">Mr. Eric Tlachac</a> , <a href="#">Mr. Victor Modeer</a>
11am	<b>Applying CCR Lessons Learned to Legacy Rule Implementation</b> » <a href="#">Mrs. Sarah Holmstrom</a> , <a href="#">Mr. Greg Tieman</a>
11:30am	<b>Proposed Effluent Limitations Guidelines for CCR Landfill Leachate and Legacy Wastewater</b> » <a href="#">Ms. Lindy Johnson</a> , Mr. William Kennedy
10:30am	<b>Geotechnical 1 - Geotechnical 1</b> <i>Manz Room</i> Chaired by: Dr. PJ Nolan
10:30am	<b>Potential Failure Mode Analysis for Groundwater Collection Trench Between a CCR Landfill Berm and a River</b> » <a href="#">Mr. John Seymour</a> , Dr. Onur Tastan, Dr. Paul Sabatini, Mr. Victor Modeer, Mr. Isaiah Vaught



Continued from **Tuesday, 14 May**

11am **Modeling in Support of Dewatering and Closure Construction of an Upstream Raise CCR Surface Impoundment**  
 » [Mr. Craig Schuettpelez](#), [Dr. Tanya Walkenbach](#), Mr. Todd Stong, Mr. Shane Stockdill

11:30am **PVC LINER INTERFACE FRICTION AND SLOPE STABILITY**  
 » [Mr. John Klamut](#), [Mr. Ron Harris](#), Mr. James Shields

10:30am **Project Specific Cases 1 - Project Specific Cases 1**  
*Kruger Room*  
 Chaired by: Mr. Joe Keller

10:30am **How to Find CCRMUs – Case Studies on Demolition Projects**  
 » [Ms. Cassie Dumoulin](#), Mr. Mark Rokoff

11am **How to Create a Multi-Faceted Strategic Communications Playbook About Coal Ash Management**  
 » [Ms. Tamara Hinton](#)

11:30am **Dry FGD Byproduct Characteristics and Utilization In China – Development and Trends**  
 » [Dr. Muhcheng Wu](#), Dr. Qingfa Su, Dr. Jianchun Wang, Mr. Yongrui Chen, Mr. Hong Chen, Mrs. Canfeng Xu, Mr. Maoyuan Lu, Mr. Yiqiang Lai, Mr. Yuan Zhang, Mr. Chunyuan Lin

10:30am **Cement and Concrete 1 - Cement and Concrete 1**  
*Ramme Room*  
 Chaired by: Dr. Tristana Duvallet

10:30am **Carbon Credit Generation for Harvested and Beneficiated Ash**  
 » [Ms. Kayla Carey](#)

11am **Calcined Clay Cement: The New Fly Ash for Low Carbon Concrete?**  
 » [Prof. Rod Jones](#)

11:30am **Advancements in Coal Ash Specifications: What's Needed for Concrete Use Today?**  
 » [Dr. Lawrence Sutter](#)

10:30am **Panel Discussion - 'Utility Perspectives on Beneficial Use of Harvested CCR'**  
*Adams Room*  
 Chaired by: Donnie Seward

10:30am **Utility Perspectives on Beneficial Use of Harvested CCR**  
 » [Dr. Michael Turnbow](#), [Mr. Brett Mitchell](#), [Mr. Chris Gee](#)

10:30am **Groundwater and Environment 1 - Groundwater and Environment 1**  
*Robl Room*  
 Chaired by: Mr. Graham Crockford

10:30am **Dewatering Optimization Strategies in Support of Closure by Removal (CBR) to Accelerate Groundwater Cleanup at CCR Sites with Case Study**  
 » [Mr. Sean Larkin](#), Dr. Jacob Chu

11am **Understanding the Challenges of Establishing Suitable Groundwater Monitoring Systems for Compliance with the Legacy Rule Revisions to CCR Regulations.**  
 » [Mr. Wayne Weber](#), Mr. James Feild, Mr. Rob Heimbach, Mr. Chris hoglund

11:30am **CCR Dewatering – Back to the Basics**  
 » [Mr. Gregory Landry](#)

10:30am **Landfill and Pond Issues 1 - Landfill and Pond Issues 1**  
*Goss Room*  
 Chaired by: Mr. Ron Hager



Continued from **Tuesday, 14 May**

10:30am **CCR Landfills - Part 1: Groundwater Considerations during Design and Construction**

» [Mr. Johnathan Ebenhack](#), Mr. Jerry Wylie

11am **CCR Landfills - Part 2: Using a Graphical Interpretation with Model Simulations to Predict Groundwater Elevations During and After CCR Landfill Construction**

» [Mr. Jerry Wylie](#), Dr. Rong Yu

11:30am **Considering the Big Picture: Planning and Designing for a Multiple CCR Landfill Site**

» [Mr. Andrew Rodzianko](#), Ms. Monica Moody

10:30am **Mining and Reclamation 1 - Mining and Reclamation 1**

*Marksberry Room (B)*

Chaired by: Ms. Haley Johnson

10:30am **Use of Harvested Fly Ash and Landfilled FGD Materials for Mine Reclamation**

» [Dr. Tarunjit Butalia](#)

11am **Novel Mining Materials Based on Coal Solid Waste**

» [Dr. Dong Zhang](#), Dr. Yang Dong, Dr. Jinder Jow, Dr. Si-yu Gong, Dr. Chun-lei Geng, Mr. De-hai Lin

11:30am **Manufacturing of LEED Sustainable Building Materials from Previously Landfilled Off-Spec Fly Ash**

» [Mr. Randall Stremmel](#)

10:30am **Ash Management 1 - Ash Management 1**

*Marksberry Room (A)*

Chaired by: Ms. Jillian Cavellier

10:30am **Coal Combustion Products Worldwide - On the Stretch from Suitability to Sustainability**

» Mr. Craig Heidrich, Dr. Jinder Jow, Mr. Thomas Adams, [Dr. Hans-loachim Feuerborn](#)

11am **Design and Construction Challenges with Construction of a Landfill in a Former CCR Basin**

» [Mr. Kory Anstead](#)

11:30am **Innovative Solutions for a Unique CCR Facility Closure - A Case Study**

» [Ms. Brittany Hebbeler](#), Mr. Nathan Bader, Mr. Shane Harris

10:30am **CLOSED - networksY & Ashcor meeting**

*Chase Boardroom*

11:30am **WWCCPN Meeting - CLOSED Meeting - WWCCPN Meeting**

*Chase Boardroom*

12pm **Lunch**

*Exhibit Hall C*

1pm **Beneficiation and Processing 2 - Beneficiation and Processing 2**

*Caylor Room*

Chaired by: Robert Rathbone

1pm **Changes in the Nature of Midwestern Fly Ash Over the Past Two Decades: I. Chemistry, Mineralogy, and Beneficial Potential**

» [Dr. Bob Jewell](#), Ms. Anne Oberlink, Dr. Thomas Robl

1:30pm **Changes in Midwestern Fly Ash II. Air Classification, Magnetic Separation and the Pozzolanic Characteristics of the Ash**

» Ms. Anne Oberlink, Ms. Sydney Dendekker, Ms. Haley Johnson, [Dr. Thomas Robl](#), Dr. Bob Jewell



Continued from **Tuesday, 14 May**

- 2pm **Beneficial Use of Fly-Ash through Soil Stabilization and Portland Cement Concrete Mix**  
» [Dr. Adam Kaplan](#), Dr. M. A. Karim, Dr. Youngguk Seo
- 2:30pm **Collaborative utilization of fly ash and desulfurization wastewater**  
» Ms. Xia Wang, Dr. Yang Dong, [Dr. Jinder Jow](#)
- 3pm **Use of Visualization Software as a Tool for Site Characterization**  
» [Mr. Kevin Cernik](#), Mr. Craig Schuettpelz, Mr. Shane Stockdill, Mr. Todd Stong

1pm **Emerging Technologies 2 - Emerging Technologies 2**

*McKinley Room*  
Chaired by: Mr. Bradford Cooley

- 1pm **Removal of Selenium from Difficult-to-treat Wastewaters Using an Innovative Reductive-adsorptive Media**  
» [Mr. Patrick McKeown](#), Dr. Madan Tandukar, Dr. Steve Woodard, Mr. Mike Nickelsen
- 1:30pm **Wicking Wells, a new novel method to remediate dissolved solids in groundwater**  
» [Mr. Shane McDonald](#)
- 2pm **Efficacy and Applications of Microbial Induced Calcium Carbonate Precipitation in Coal Ash Management**  
» [Mr. William Odle](#), Prof. Brina Montoya, Dr. Pegah Ghasemi
- 2:30pm **An Innovative and Cost-Effective Boron Adsorbent Media**  
» [Ms. Allison Kreinberg](#), Mr. Rob Ferree, Dr. Duane Graves

1pm **Regulatory Issues 2 - Regulatory Issues 2**

*Cain Room*  
Chaired by: Ms. Leslie Miller

- 1pm **CASE STUDY: BEST PRACTICES IN IMPLEMENTING THE FACILITY EVALUATION REPORT (PER THE LEGACY CCR SI RULE)**  
» [Mr. Mark Rokoff](#)
- 1:30pm **Legacy Rule Implementation Deadlines: Examining the Agency vs. Industry Disconnect**  
» [Mr. Lucas Carr](#), Mr. Eric Tlachac, Mr. Brian Hennings
- 2pm **Legacy Rule Insights and Challenges**  
» [Mrs. Arica DiTullio](#), [Ms. Leigh Rounce](#)
- 2:30pm **Proposed CCR Legacy Rule – Making Sense from Chaos**  
» [Mr. Will Mattingly](#), [Mr. Charla Barnes](#)
- 3pm **Proposed Legacy Rule – Groundwater Compliance Nuances and Lessons Learned**  
» [Mr. Matt Dagon](#), Dr. Peter Thibodeau

1pm **Cement and Concrete 2 - Cement and Concrete 2**

*Manz Room*  
Chaired by: Dr. Neal Berke

- 1pm **Exploring Rapid Solidifying Fly Ash Cementitious Materials for Making Structural Components**  
» [Ms. Tulie Chakma](#), [Mr. Stephen Gordon](#), Dr. Shaurav Alam, Dr. John Matthews
- 1:30pm **The durability of mortars and concrete with a high volume of Ordinary Portland Cement (OPC) substituted by a fly ash calcium sulfoaluminate binder**  
» [Dr. Peeter Paaver](#)



Continued from **Tuesday, 14 May**

2pm **Performance of 5-year old concrete made with spray dryer absorber material**  
 » [Mr. Benjamin Gallagher](#), Mr. Sundar Chithiraputhiran, Mr. Travis Collins

2:30pm **The Future of CCR "Green Cement" Technology to Reduce CO2 and Provide High-Performance Products**  
 » [Mr. Russell Stapp](#)

1pm **CCP Chemistry and Classification 1 - CCP Chemistry and Classification 1**  
*Kruger Room*  
 Chaired by: Dr. Heileen Hsu-Kim

1pm **Coal Combustion Residual Characterization for Beneficial Use**  
 » [Mr. Jimmy Knowles](#)

1:30pm **Coal Ash Constituents and Treatment Options**  
 » [Mrs. Christine Harris](#), Mr. Rob Orlando

2pm **Exploring Non-Traditional Coal Ash as a Sustainable Alternative in Concrete: Performance Analysis and Predictive Modeling**  
 » [Mr. Behzad Tahmouresi](#), Dr. Tyler Ley

2:30pm **An Evaluation of On-Site X-Ray Fluorescence (XRF) Analysis on Coal Combustion Residuals**  
 » [Mr. Christopher Frishcosy](#), Dr. Ashley Manning-Berg, Ms. Linen Cooper, Mr. Robert Hageman, Mr. Timothy Moyers, Ms. Tara Masterson, Mr. Nicholas McClung

3pm **Application of Data Science Techniques to Estimate Soluble Alkali Contribution from Fly Ashes for Determination of Concrete Pore Solution Chemistry**  
 » [Prof. Anol Mukhopadhyay](#)

1pm **Environmental Issues 1 - Environmental Issues 1**  
*Ramme Room*  
 Chaired by: Mr. Jason House

1pm **A Practical Approach to Manufacturing Sintered Lightweight Aggregates (LWA) from Unrecycled Coal Combustion Ash (CCA)**  
 » [Mr. Yousif Algenai](#), Mr. Mohammadamin Zooyousefin, Ms. Thuy Nguyen, Dr. Mo Balapour, Mr. Yaghoob (Amir) Farnam

1:30pm **Ash Utilisation for The Protection and Improvement of Electrical Transmission Infrastructure**  
 » [Mr. Cyril Attwell](#), Dr. Kelley Reynolds-Clausen, Ms. Pheny Mvuyana

2pm **Managing Ash Pond Closure Waters: Technology Selection and Design Considerations**  
 » [Mr. Philip Benson](#)

2:30pm **Corrective Action Sustainability: Holistic Decision Support Tool**  
 » [Mr. John Kondziolka](#), Ms. Ari Lewis, Mr. Bruce Hensel, Mr. Andrew Bittner

3pm **Heavy Metals Reduction and Sequestration at Coal Combustion Residuals (CCR) Sites**  
 » [Mr. Lowell Kessel](#)

1pm **Panel Discussion - 'Implementing the Final CCR Legacy Rule'**  
*Adams Room*  
 Chaired by: Mr. Robert Glazier

1pm **Implementing the Final CCR Legacy Rule**  
 » [Mr. Robert Glazier](#), [Mrs. Martha Thomsen](#), [Mr. John Seymour](#), [Mr. Victor Modeer](#)

1pm **Groundwater and Environment 2 - Groundwater and Environment 2**  
*Robl Room*  
 Chaired by: Dr. Ben Amos





Continued from **Tuesday, 14 May**

- 1pm **Effective Groundwater Treatment at CCR sites**  
» [Mr. Mark Bryant](#), [Mr. Derek Ingram](#), Mr. Michael Marley
- 1:30pm **Arsenic Treatment from Coal Ash Pond Groundwater**  
» [Dr. Jack Ma](#), Mr. David Donkin, Mr. Morgan French
- 2pm **Bench-Scale Testing of Selenium Treatment using Passive, Constructed Treatment Wetlands**  
» [Ms. Katy Lindstrom](#), [Mr. Ryan Schipper](#), Mr. Andrew Dykstra
- 2:30pm **In Situ Groundwater Treatment of Arsenic via Iron Coprecipitation with Air Sparge: Opportunities and Challenges**  
» [Dr. Michael Hay](#), Mr. Britt McMillan, Ms. Whitney Sauve, Mr. Daniel Groher, Ms. Nica Klaber, Ms. Janet Mathews-Flynn
- 3pm **Feasibility of Concurrent Treatment of Arsenic and Molybdenum through Co-Precipitation and Adsorption with Case Study and Cost Analysis**  
» [Mrs. Prachi Jain](#), [Mr. Brian Colonnese](#), Dr. Jacob Chu
- 1pm **Landfill and Pond Issues 2 - Landfill and Pond Issues 2**  
*Goss Room*  
Chaired by: Neil Hancock
- 1pm **Planning and Implementation of Closure by Removal (Clean Closure) In Louisiana**  
» [Ms. Angela Harrigal](#), [Ms. Denise Radaich](#)
- 1:30pm **CCR Facility Instrumentation for Closure Programs**  
» Mr. Dale Evans, [Mr. Zachary Boucias](#)
- 2pm **Beyond Decommissioning: Utility Scale Zero Liquid Discharge Solutions for Landfill Leachate and FGD Wastewater Post Power Plant Closure**  
» [Mr. Joseph Woodley](#), Mr. Morgan French

- 2:30pm **Spillway Abandonment for CCR Site Closure – Techniques and Challenges**  
» [Ms. Brooke Alison](#), Mr. Shane Harris, Mr. Nicholas Golden
- 3pm **Comparing Landfill Post-Closure Stormwater Runoff – Vegetated Soil Cover versus Engineered Synthetic Turf Cover**  
» [Mr. Mark Taylor](#), Mr. Chris Jordan, [Mr. Chris Timpson](#), Dr. Ming Zhu
- 1pm **Environmental Ash Management 1**  
*Marksberry Room (B)*  
Chaired by: Ms. Brittany Hebbeler
- 1pm **The Closure and Capping of Ash Treatment Basin 2 at Kentucky Utilities Ghent Generating Station**  
» [Mr. Steven Turner](#), Mr. Jeffrey Heun
- 1:30pm **Effects of low-dosage lime treatment on beneficial reuse of pond ash as Secondary Cementitious Materials (SCMs)**  
» Mr. Utsa Rashique, [Mrs. Karen Slade](#), Mr. Howard Fitzgerald, Mr. Ian Saratovsky
- 2pm **Coal Ash & the Public – Tell your story before someone else does!**  
» [Mr. Tim Hancock](#), [Ms. Melissa Hedgecoth](#)
- 2:30pm **Designing for Operational Flexibility at CCR Groundwater Extraction and Treatment Systems**  
» [Ms. Erin Diven](#), Mr. Danny Stephens, Mr. matt newhart
- 3pm **Chemical-free, High-volume Leachate Pond Filtration: Commercial Success**  
» [Mr. Gerard Simon](#)
- 1pm **Impoundment and Ponds 1**  
*Marksberry Room (A)*  
Chaired by: Steve Putrich



Continued from Tuesday, 14 May

- 1pm **Impoundment Closure Using Discrete In-situ Solidification – Site Update**  
» [Mr. Tim Silar](#), Mr. John Magee
- 1:30pm **Successful Piloting of Discrete ISS at a CCR Impoundment**  
» [Mr. George Little](#), Dr. Paul Lear, Mr. Tim Silar, Mr. Richard Chapman, Mr. John Magee, Mr. Ambaresh Tijare, Mr. David Miller
- 2pm **Evaluating Surface Impoundment Closure Alternatives Using Relative Impact Assessment – Two Case Study Examples**  
» [Mr. Andrew Bittner](#), Dr. Qian Zhang
- 2:30pm **PREPARING TO DEWATER A CCR POND: WAYS TO BETTER UNDERSTAND YOUR POND CHARACTERISTICS AND PLAN FOR A SUCCESSFUL DEWATERING EFFORT**  
» [Mr. Ron Hager](#), Mr. James Feild
- 3pm **Planning and Implementation of Closure by Removal Paired with Beneficial Use**  
» [Mr. Jay Mokotoff](#), [Mrs. Angela Casbon-Scheller](#)
- 3:30pm **Poster Session -  
Poster Session/Happy Hour**  
*Exhibit Hall C*  
Chaired by: Ms. Anne Oberlink
- Fly Ash-based Geopolymer: Microstructure and Compressive Strength**  
» [Ms. Lujain Salem](#), Dr. Young Hoon Kim
- New Applications for Beneficial Reuse of Coal Combustion Ash**  
» [Ms. Anne Oberlink](#), Dr. Bob Jewell, Dr. Thomas Robl, Mr. Curtis Willie, Mr. Jim Crenshaw, Mr. Scott Hoskins, Ms. Hailey Mattingly

**Separation and extraction of rare earth elements in high aluminum fly ash from a power plant in Inner Mongolia, China**  
» [Prof. S.J. Qin](#), Dr. SHENYONG LI, Mr. Shuai Kang, Ms. Wei Pang, Mr. Longlong Hao

**Example Application of a Holistic Decision Support Tool Used for Selecting Corrective Actions at Coal Combustion Product Sites**  
» [Ms. Ari Lewis](#), [Mr. John Kondziolka](#), Mr. Matt Biega, Dr. Egidio Tentori, [Dr. Qian Zhang](#), Dr. Ishita Shrivastava, Mr. Bruce Hensel

**How sampling methods affect the interpretation of groundwater microbial communities**  
» [Dr. Ann Ojeda](#), Dr. Natalia Malina, Ms. Elyssa Rivera, Ms. Shifat Monami, Dr. Laura Bilenker, Dr. Ming-Kuo Lee

**Relationship of Energy and the Effect on Coal Combustion Residual (CCR) Behavior: A Study of Moisture-Density Relationships**  
» [Mr. Tyler Hitt](#), Mr. Harvey Upchurch, Mr. Will Rex

**Bioengineering of a Plant System to Remove Arsenic and Cadmium and Sustainably Harvest Rare Earth Elements (REEs) from Fly Ash.**  
» [Ms. Edmaritz Hernandez Pagan](#), Dr. Colleen Doherty, Dr. Michael Kudenov, Dr. Kanjana Laosuntisuk

**Remote characterization of impounded ash**  
» [Mr. Krish Mehta](#), Dr. Manju Murugesu

**Use of Unconventional Fly Ash as Sensible Particulate Thermal Energy Storage Materials for Concentrating Solar Power**  
» [Ms. Megan Bellusci](#), [Ms. Kiana Oos](#), Dr. Deborah Glosser, Mr. Drew Johnson, Dr. Prannoy Suraneni

**Understanding the Impact of Fly Ash Particle Size on Reactivity and Strength Development**  
» [Mr. Mahmud Yahya](#), Dr. Lisa Burris



Continued from **Tuesday, 14 May**

**Functionality of Coal Fly Ash in Mortars After Rare Earth Element Recovery**

» Ms. Rahima Tufail, Dr. Sarah Brownlee, Dr. Timothy Dittrich, Dr. Matthew Allen, Dr. Mohammad Dardona, Dr. Sai Praneeth, Dr. Ahmed Sakr, Mr. Dimitrios Porter, Mr. Chandra Tummala, Mr. Preetom Roy

**Fly Ash and Lime Stabilization of Sewage Sludge: Changes to Phosphorous Solubility and Bioavailability**

» Dr. Yaniv Freiberg, Dr. Shahar Baram, Dr. Michael Borisover, Dr. Pinchas Fine

**Application of carbon nanotube technology to fly-ash based geopolymer concrete for strength development and net-zeros aspect**

» Ms. Janell Prater, Dr. Young Hoon Kim

**Agricultural Gypsum for Improved Production and Soil Carbon Capture**

» Dr. Brian Gardener, Dr. Roland Wilhelm

**Swell compression testing on Kaolinite Gypsum Systems**

» Mr. Kelden Andrews, Dr. Thomas Robl, Dr. Tristana Duvallet, Dr. Bob Jewell, Mr. Ewen Floch

4:30pm **Invite Only - Harvested CCR Consultation Forum**

*Caylor Room*

Chaired by: Dr. Tarunjit Butalia

**Wednesday, 15 May**

7am **Breakfast**

*Exhibit Hall C*

7am **Registration**  
*Outside of Ramme*

7am **Exhibit Hall Open**  
*Exhibit Hall A, B, C*

8am **Beneficiation and Processing 3 -  
Beneficiation and Processing 3**  
*Caylor Room*  
Chaired by: Mr. Gabe Lang

8am **Uniaxial Compressive Behavior of "Solidified" Synthetic  
Lightweight Aggregates**  
» Ms. Annika Han, Prof. Chris Swan

8:30am **A technology platform to recycle off-spec coal combustion  
products into construction lightweight aggregate**  
» Dr. Mo Balapour

9am **Ash recovery from legacy stock - issues to consider based on  
experience in France**  
» Mr. Loic Danest

9:30am **Harvested Fly Ash Beneficiation Using a Triboelectric Belt  
Separator**  
» Mr. Kyle Flynn, Mr. Kamal Ghazi, Mr. Doug Widener, Mr. Abhishek Gupta, Mr. Frank Hrach

8am **Emerging Technologies 3 -  
Emerging Technologies 3**  
*McKinley Room*  
Chaired by: Mr. Colin Plank

8am **DEMONSTRATING EQUIVALENCY OF CLOSURETURF AS A VIABLE  
ALTERNATIVE TO TRADITIONAL CCR FINAL COVER SYSTEMS**  
» Mr. Tyler Schmidt



Continued from **Wednesday, 15 May**

8:30am **Performance of Engineered Turf Cover System Under Extreme Weather Conditions**

» [Mr. Thomas Orzech](#), Dr. Bryan Scholl, Mr. Bradford Cooley, Dr. Ming Zhu

9am **ADVANCED SYNTHETIC AND CONCRETE REVETMENT SYSTEM FOR CCR CLOSURE APPLICATIONS**

» [Mr. Bradford Cooley](#), Mr. Randy Thompson

9:30am **Emerging technologies for water conveyance and containment**

» [Mr. Nathan Ivy](#)

8am **Regulatory Issues 3 -  
Regulatory Issues 3**

*Cain Room*

Chaired by: Mr. Brian Hennings

8am **CAPPING & CLOSURE FOR TWO PENNSYLVANIA LANDFILLS SUBJECT TO U.S. EPA'S CCR RULE PROMULGATED UNDER 40 CFR 257 SUBPART D**

» [Mr. John Klamut](#), Mr. Ron Harris, Mr. Cory White

8:30am **LIFE AFTER COAL? OPPORTUNITIES AND CHALLENGES AT DECOMMISSIONED COAL-FIRED POWER SITES**

» [Ms. Leslie Miller](#), Mr. Brian Owens, Ms. Stacey VanBelleghem

9am **IT'S HERE NOW! SUMMARIZING KEY ELEMENTS IN THE NEW LEGACY CCR SI RULE**

» [Mr. Mark Rokoff](#)

8am **Geotechnical 2 -  
Geotechnical 2**

*Manz Room*

Chaired by: Mr. Craig Schuettpelz

8am **TVA Shawnee – Overcoming Engineering Challenges Associated with Closure In Place of Mixed Ash**

» [Mr. Craig Lee](#), Mr. Michael Owens

8:30am **Case Study: Perimeter Barrier Wall Installation to Facilitate Closure by Removal**

» [Mr. Shawn Coughlin](#), Mr. Christopher Gee, Dr. Paul Schmall

9am **A Decade of Automated Instrumentation Data – A TVA Story**

» [Mr. Nicholas McClung](#), [Mr. Matt Bishop](#), Mrs. Nicole Walker, Mr. Chris Jones

8am **Project Specific Cases 2 -  
Project Specific Cases 2**

*Kruger Room*

Chaired by: Mr. Dave Donahue

8am **Lessons Learned Through the Implementation of In-Situ Stabilization for the Closure of a Coal Combustion Residue Site**

» [Mr. Vincent Spillane](#), Mr. Michael Fisher, Mr. Darin Payne

8:30am **Data Collection, Assimilation and Reporting Methods to Support Pond Closure – A Case Study**

» [Ms. Katherine \(Kat\) Warwick \(Coco\)](#), Mr. Joe Keller, Dr. Kirkland Broadwell

9am **Successful Installation of a Vertical Hydraulic Barrier at a CCR Impoundment During In-Place Closure**

» [Mr. Jim Edwards](#), Mr. Sylvain Payne-Gagnon

9:30am **EPA's Value Engineering Approach for Gypsum Stack Closure**

» [Mr. Michael Ayers](#), [Mr. Craig Zeller](#)

8am **CCP Chemistry and Classification 2 -  
CCP Chemistry and Classification 2**

*Ramme Room*

Chaired by: Ms. Tara Masterson



Continued from **Wednesday, 15 May**

- 8am **Geospatial Resource Reserve Dataset of Coal Ash Quality at Electric Power Facilities in the United States**  
» [Dr. Heileen Hsu-Kim](#), Mr. Zehao Jin, Dr. James Hower
- 8:30am **Risk-Based Decision Making to Guide CCR-Impacted Soil Remediation**  
» [Mr. Jay Peters](#), [Ms. Courtney Murphy](#)
- 9am **Lessons Learned Managing Water Chemistry in High Recycle Rate Bottom Ash Transport Systems**  
» [Mr. David Donkin](#), Mr. Bernie Evans
- 9:30am **Developing Site-Specific Background Soil Concentrations of CCR Parameters at Fossil Plants**  
» [Mr. Edgar Smith](#)
- 8am **Panel Discussion - Panel Discussion - Legacy Stockpiles of Coal Derived Fly Ash (CDFA) in the United Kingdom and Associated Research**  
*Adams Room*  
Chaired by: Dr. Nigel Cooke
- 8am **Soliciting Support from UK Government to Safeguard Legacy Stockpiles of Coal Derived Fly Ash (CDFA)**  
» [Dr. Nigel Cooke](#)
- 8:30am **Investigating Coal Derived Fly Ash from UK Legacy Stockpiles and Beneficiation for Use in Concrete Construction**  
» [Dr. Michael McCarthy](#), Dr. Thomas Hope, Dr. Laszlo Csetenyi
- 9am **Fly Ash Harvesting: Simultaneous Drying, Sizing, and Carbon Reduction Demonstration**  
» [Mr. Scott Coley](#), [Mr. Doug Widener](#), Mr. Frank Hrach, Mr. Lewis Baker, Mr. Andrew Rigg

- 8am **Groundwater and Environment 3 - Groundwater and Environment 3**  
*Robt Room*  
Chaired by: Mr. Nathan Higerson
- 8am **Groundwater Model Workflow for CCR Sites**  
» [Mr. William Gottobrio](#), Mr. Cliff Baines, Ms. Roselyne Laboso, Mr. Skyler Sorsby
- 8:30am **Visualization Tools to Enhance Conceptual Site Models Throughout the Project Life Cycle**  
» [Mrs. Darby Litz](#), Mr. Jason House
- 9am **Reactive Transport Modeling of Closure-in-Place with Intersecting Groundwater and Remedial Actions: Part I, Model Creation and Execution**  
» [Dr. Jason James](#), [Dr. Olivia Paradis](#), Dr. Rachel Kelly, Dr. Walter McNab, Mr. Bruce Hensel
- 9:30am **Reactive Transport Modeling of Closure-in-Place with Intersecting Groundwater and Remedial Actions: Part II, Results and Meaning**  
» [Mr. Bruce Hensel](#), [Dr. Jason James](#), [Dr. Olivia Paradis](#), Dr. Rachel Kelly, Dr. Walter McNab
- 8am **Groundwater and Environment 4 - Groundwater and Environment 4**  
*Goss Room*  
Chaired by: Mr. Brooks Rosandich
- 8am **Next-Generation High-Resolution Methods for Site Characterization**  
» [Dr. PJ Nolan](#), Mr. Cole Mayer, Ms. Dawn Prell, Dr. Rens Verburg
- 8:30am **Communicating Corrective Action Approach and Timing**  
» [Mr. Paul Thomas](#), [Mr. Jim Finley](#)



Continued from **Wednesday, 15 May**

- 9am **High Resolution Site Characterization to Increase Corrective Action Efficiency**  
» [Ms. Kathryn Farris](#), Dr. Margaret Gentile, Mr. Geoff Gay
- 9:30am **ASSET RETIREMENT OBLIGATIONS: UPDATING YOUR AROS BASED ON THE PROPOSED LEGACY CCR SURFACE RULE**  
» [Mr. Ron Hager](#)
- 8am **Landfill and Pond Issues 3 - Landfill and Pond Issues 3**  
*Marksberry Room*  
Chaired by: Mr. John Bove
- 8am **Dewatering Basics - Understanding the challenges of dewatering**  
» [Mrs. Christine Harris](#)
- 8:30am **Systematic Dewatering for CCR Ponds**  
» [Mr. Dale Evans](#), Dr. Paul Schmall
- 9am **An Innovative and Economical Approach To Ash Dewatering**  
» [Mr. Morgan French](#)
- 9:30am **DESIGN AND MODELING TO DEWATER A PARTIALLY CLOSED ASH POND**  
» [Mr. Michael Thornbrue](#)
- 10am **Coffee Break**  
*Exhibit Hall C*
- 10:30am **Landfill and Pond Issues 6 - Landfill and Pond Issues 5**  
*Caylor Room*  
Chaired by: Mr. Dale Evans

- 10:30am **Ash Basin Excavation Under Strict Orders - A Measured Approach**  
» [Mr. Mark Taylor](#), [Mr. EVAN ANDREWS](#), Mr. Longde Jin, Mr. Naveen Ganji
- 11am **Stress-Related Considerations for GCL Shear Performance in Coal Ash Facilities**  
» [Dr. Jeffrey Kuhn](#), Mr. Rich Lacey
- 10:30am **Geotechnical 3 - Geotechnical 3**  
*McKinley Room*  
Chaired by: Mr. John Klamut
- 10:30am **Dewatering System Installation Methods for Ash Dewatering and Deep Depressurization- A Case Study**  
» [Mr. Shawn Coughlin](#), [Mr. Christopher Gee](#), Mr. Christopher Jones, Dr. Paul Schmall
- 11am **Seismic Interferometry Technique for Characterization of Loose CCR Layers**  
» [Dr. Seda Gokyer Erbis](#), Dr. Allen Marr, Dr. Thomas Bardainne, Mr. Renaud Tarnus, Mrs. Ellen Money, Mr. Nicholas McClung, Mr. Matt Bishop, Mr. Jonathan Petsch
- 10:30am **Cement and Concrete 3 - Cement and Concrete 3**  
*Cain Room*  
Chaired by: Dr. Bob Jewell
- 10:30am **A Study on the Applicability of Dry Bottom Ash as a Fine Aggregate for Lightweight Aggregate Concrete**  
» [Dr. Sangchul Shin](#), Dr. Jinman Kim, Dr. Hoonsik Hong
- 11am **Fairly Assessing Slowing Reacting Cement for Low Carbon Concrete**  
» [Prof. Rod Jones](#)



Continued from **Wednesday, 15 May**

- 11:30am **Improving Testing to Rapidly Identify High Quality Pozzolanic Supplementary Cementitious Materials**  
» [Dr. Lisa Burris](#), [Dr. Prannoy Suraneni](#), [Dr. Thomas Robl](#)
- 10:30am **CCP Storage and Management 1 - CCP Storage and Management 1**  
*Manz Room*  
Chaired by: Mr. Max Cange
- 10:30am **The Closure of the Gypsum Storage Pond (GSP) by Removal and Use as Fill in the Bottom Ash Pond (BAP) at the Louisville Gas and Electric (LG&E) Trimble Generating Station**  
» [Mr. Steven Turner](#), Mr. John Williams, Mr. Jarrett Beach
- 11am **Pathways to maximise stored Coal Combustion Products (CCPS): Partnership between NSW Government and Ash Development Association of Australia**  
» [Mr. Craig Heidrich](#), Dr. Warren South
- 11:30am **Final Waste Management Options Analysis**  
» [Ms. BreAnne Kahnk](#), [Mr. Todd Martin](#)
- 10:30am **Rare Earth Elements 1 - Rare Earth Elements 1**  
*Kruger Room*  
Chaired by: Dr. Denise Levitan
- 10:30am **Separation process and mechanism of lithium and gallium by microwave enhanced leaching of high-alumina coal ash**  
» [Dr. SHENYONG LI](#), Ms. Qian Wang, Mr. Shuai Kang, Ms. Wei Pang, Mr. Longlong Hao, Prof. Shenjun Qin
- 11am **Novel Critical Metals Recovery Techniques from Coal Ash**  
» [Mr. Claudio Arato](#)

- 11:30am **The occurrence of rare earth elements in South African coal ash: identification and characterisation**  
» [Prof. Nicola Wagner](#), Ms. Vhonani Rerani, Prof. Christopher Baiyegunhi, Dr. Sanki Biswas, Ms. Happy Mabowa
- 10:30am **Disposal and Waste 1 - Disposal and Waste 1**  
*Ramme Room*  
Chaired by: Mr. Harold Register
- 10:30am **CCR Closure: Best Practices in Project Management that Provide Asset Protection Throughout Each Stage of the Construction Life Cycle by Reducing Liabilities, Ensuring Quality and Expediting Regulatory Acceptance.**  
» [Mr. Glen Toepfer](#)
- 11am **Design and commissioning of coal fly ash filter plant**  
» [Mr. James Keat](#), Mr. Jason Hamelehle, Mr. Casey Schmitt
- 11:30am **Demolition of the Navajo Generating Station**  
» [Ms. Sunshine Pryor](#), Mr. Pete Everds, Mr. Michael O'Hare
- 10:30am **Panel Discussion - 'Expert Perspectives on the U.S. Coal Combustion Products Market - Now, Then, and the Future'**  
*Adams Room*  
Chaired by: Mr. David Cox
- 10:30am **Expert Perspectives on the U.S. Coal Combustion Products Market - Now, Then, and the Future**  
» [Mr. David Cox](#), [Mr. John Ward](#), [Mr. Mark Rokoff](#), [Mr. Danny Gray](#)
- 10:30am **Groundwater and Environment 5 - Groundwater and Environment 5**  
*Robl Room*  
Chaired by: Jeremy Gasser



Continued from **Wednesday, 15 May**

- 10:30am **Effective Remedial Measure: Evaluating Monitored Natural Attenuation Paired with Source Control**  
» [Mrs. Kelly Ferri](#), Mr. Craig Eady, Mrs. Kathy Webb
- 11am **Natural Attenuation of Metals and Inorganics: Insights from Laboratory Testing Approaches**  
» [Ms. Larissa Smith](#), Mr. Michael Healey, Mr. Jeff Roberts, Ms. Allison Kreinberg, Ms. Crystal Wilson, Mr. Lane Dorman, Mr. Andrzej Przepiora
- 11:30am **When is MNA Not Enough? Avoiding Unwarranted Contingency Actions**  
» [Mr. Geoff Gay](#), [Dr. Margaret Gentile](#), Mr. Mark Lupo

10:30am **Groundwater and Environment 6 - Groundwater and Environment 6**  
*Goss Room*  
Chaired by: Ms. Shannon Zahuranec

- 10:30am **Implementation Issues, Groundwater Corrective Action, Laramie River Station, Basin Electric Power Cooperative**  
» [Mr. Jeremy Hurshman](#), Mr. Dennis Connair
- 11am **Cutoff Walls for Groundwater Containment and Corrective Action**  
» [Dr. Paul Schmall](#), Mr. Jeff Bean
- 11:30am **In Situ Remediation of Multi-Metal Groundwater Plumes (Arsenic, Cobalt, Lithium, and Molybdenum): Treatability Studies**  
» [Dr. Dimitri Vlassopoulos](#), Dr. Masa Kanematsu, Dr. Jason Stuckey, Ms. Grace Weatherford, Ms. Minna Carey

10:30am **Landfill and Pond Issues 4 - Landfill and Pond Issues 4**  
*Marksberry Room*  
Chaired by: Mr. Andrew Rodzianko

10:30am **Lessons Learned from Landfill Construction Inside Former Ash Ponds**  
» [Mr. John Bove](#)

11am **Coal ash engineering: A look back at the past and peak into the future**  
» [Dr. Ramachandran Kulasingam](#)

11:30am **Focused Constructability Review Process for Ash Pond Closures**  
» [Mr. Sean Rome](#)

12pm **Lunch**  
*Exhibit Hall C*

12pm **Student Lunch - Invitation Only - Student Lunch**  
*Atrium Room*

1pm **Regulatory Issues 4 - Regulatory Issues 4**  
*Caylor Room*  
Chaired by: Mr. Greg Tieman

1pm **Fix or Fight: EPA's Part A and Part B groundwater monitoring deficiency findings**  
» [Mr. Kevin Solie](#), Ms. Kaela Nerhus, Mr. Jim Aiken

1:30pm **New Directions in Bottom Ash Transport Water – Managing Limited or No Discharge Requirements**  
» [Ms. Lindy Johnson](#), Mr. William Kennedy

2pm **CCR Regulations Drive Uncertainty for Beneficial Use Projects Past and Present**  
» [Ms. Susan Jackson](#), [Mrs. Martha Thomsen](#), [Ms. Dawn Santoianni](#)

2:30pm **Coal Combustion Residuals Rule: Utility Perspective Looking at 2024 and Beyond**  
» [Mr. Harold Register](#), Mr. Daniel Chartier





Continued from **Wednesday, 15 May**

3pm **Emerging Regulations and Operational Preparedness – Key Areas to Ensure Future Success for 2023 ELGs**

» [Mr. Joseph Woodley](#), Mr. Morgan French

1pm **Beneficiation and Processing 4 - Beneficiation and Processing 4**

*McKinley Room*

Chaired by: Mr. Ethan Bond

1pm **Assessing CCR Beneficiation Options for CCR Pond Closures**

» [Mr. Kelly Babichuk](#), [Mr. Dale Evans](#)

1:30pm **Successful Beneficiation Strategies for Harvested Coal Ash Residuals (CCR)**

» [Mr. Bill Fedorka, P.E.](#)

2pm **Successful practices to accelerate pond closure with beneficial reuse of CCR**

» [Mr. John Gartin](#), Mr. Dearl Tate, Mr. Tom Kierspe

2:30pm **Ponded Ash Beneficial Use Investigation and Bid Solicitation**

» [Mr. Adam Poffenberger](#)

3pm **Ash Beneficiation in Road Construction Materials.**

» [Mr. Cyril Attwell](#), Dr. Kelley Reynolds-Clausen

1pm **Emerging Technologies 4 - Emerging Technologies 4**

*Cain Room*

Chaired by: Brian Hoye

1pm **Remediation of Li, Mo, As and other metals at CCR Landfills and Ponds**

» [Mr. Lowell Kessel](#)

1:30pm **TVA Solar Installation on a Closed CCR Unit**

» [Mr. Steve Mayes](#), Mr. Kenneth Hughes, Mr. Shane Harris

2pm **HORIZONTAL VIBRATING WIRE PIEZOMETER INSTALLATION – A NEW DIRECTION IN GEOTECHNICAL EVALUATION**

» [Mr. Dan Ombalski](#), Mr. Brian Shinall, Mr. Michael Lubrecht, Mr. David Bardsley, Mr. Dave Rugh

2:30pm **Producing a High-Performance Low Carbon ASCM using Carbon Utilization Technology**

» [Mr. Dhwani Trivedi](#), [Mr. Dante Luu](#)

3pm **Evolution in Geosynthetics Starts with Utilizing Data Technology**

» [Mr. Greg Pignataro](#), [Mr. Evan Bao](#)

1pm **CCP's and Sustainable Construction 1 - CCP's and Sustainable Construction 1**

*Manz Room*

Chaired by: Mr. Mark Taylor

1pm **Sustainable construction with CCPs - an update for Europe -**

» [Dr. Hans-Loachim Feuerborn](#), Mr. Fabrice FAYOLA

1:30pm **Construction and Mining applications of 60% - 100 % Portland cement replaced ASH-based concrete in South Africa**

» [Mr. Cyril Attwell](#)

2pm **Coal Combustion Product Utilization in Thailand**

» [Ms. Chattrawadee Netwong](#), Ms. Nawamonwan Sirima, Mr. Chalermphol Bunsong, Ms. Umaporn Thong-Eiam

2:30pm **Life Cycle Impacts of Using Harvested Coal Ash as a Cement Replacement in Concrete**

» [Ms. Sabrina Bradshaw](#), Dr. Craig Benson, Dr. Tuncer Edil

3pm **Water Management and Construction Impacts**

» [Mrs. Christine Harris](#)



Continued from **Wednesday, 15 May**

- 1pm **Mining and Reclamation 2 - Mining and Reclamation 2**  
*Kruger Room*  
Chaired by: Mr. Randall Stremmel
- 1pm **Application of Portable Dewatering Systems in CCP Storage and Landfill Recovery**  
» [Mr. John Glasscock](#)
- 1:30pm **Nature-based Solutions for CCR Closure**  
» [Mr. John Watrous](#), Mr. Josh Running, Ms. Amanda Ludlow
- 2pm **CCR Landfill Reclamation for Beneficial Reuse – Lessons Learned and Practical Considerations**  
» [Mr. Brian Owens](#)
- 1pm **Hydrology and Leaching 1 - Hydrology and Leaching 1**  
*Ramme Room*  
Chaired by: Lea Millet
- 1pm **Tricky Constituents – Issues with Leachate and Groundwater Constituents of Concern**  
» [Mr. William Kennedy](#)
- 1:30pm **Pilot Testing Pore Water Extraction Using Positive Pressure Pumping Systems**  
» [Mr. Patrick Dunne](#), [Mr. Chris Daly](#), [Mr. Paul Thomas](#)
- 2pm **Ash Pond Closure in Place Using In-Situ Soil Stabilization**  
» [Mr. Jeffery Miller](#), Mr. Marc Okin, Mr. Jeff Loewe, Mr. William Haswell
- 2:30pm **Leaching Behaviors of Constituents from Coal Combustion Residuals**  
» [Dr. Charles Hostetler](#), [Ms. Kacey Garber](#), [Ms. Lindsey Hawksworth](#)

- 3pm **CCR Landfill Leachate Treatment Considerations**  
» [Mr. William Kennedy](#)
- 1pm **Panel Discussion - 'Leachate Ponds, To Treat or Not to Treat, From Proposed Effluent Limitation Guidelines to Technologies That Can Meet Them'**  
*Adams Room*  
Chaired by: Mr. Gerard Simon
- 1pm **Leachate Ponds, To Treat Or Not To Treat. From Proposed Effluent Limitation Guidelines To Technologies That Can Meet Them.**  
» [Mr. Gerard Simon](#), [Ms. AnnieLu Dewitt](#), [Ms. Jenni Henthorn](#), [Mr. Joseph Woodley](#)
- 1pm **Groundwater and Environment 7 - Groundwater and Environment 7**  
*Robl Room*  
Chaired by: Ms. Katy Lindstrom
- 1pm **What the pHudge is Going On: Statistical and Geochemical Techniques for pH Alternative Source Demonstrations**  
» [Dr. Alison O'Connor](#), [Dr. Allie Wyman-Feravich](#), [Ms. Shannon Zahuranec](#)
- 1:30pm **Navigating the Complexities of Coal Combustion Residual (CCR) Groundwater Assessment and Monitoring in Coastal Environments: A Technical Exploration**  
» [Mr. Stephen Wilson](#), [Mr. Trenton Godwin](#), [Mr. Kevin Stephenson](#)
- 2pm **Aquifer Characterization Techniques to Evaluate Coal Combustion Residuals Sources**  
» [Mr. Vincent Buening](#), [Mr. Wenbo Xie](#)
- 2:30pm **Hydrogeologic Considerations for Measuring Background Concentrations of CCR Constituents in Groundwater**  
» [Mr. Jeffrey Frazier](#), Mr. Nathan Pavlick



Continued from **Wednesday, 15 May**

3pm **Reevaluation of the Groundwater Monitoring Paradigm - Proof of Concept Study**

» [Mr. Jacob Gruzalski](#), Mr. Benjamin Adams, Mr. Bruce Hensel

1pm **Groundwater and Environment 8 - Groundwater and Environment 8**

*Goss Room*

Chaired by: Dr. Rong Yu

1pm **Effectiveness of Various CCP Unit Closure Strategies**

» [Mr. Cole Mayer](#), [Dr. PJ Nolan](#), Mr. Mark Haney, Mr. Marc Okin

1:30pm **Post-closure - Responses in Groundwater Quality and Chemistry**

» [Mr. Chris Lalonde](#), Mr. Jim Finley, Mr. Paul Thomas

2pm **Supply Chain Challenges Impacting CCR Groundwater Monitoring**

» [Ms. Jennifer Gable](#), Mr. Rock Vitale, Ms. Amanda Cover

2:30pm **Understanding The Stratigraphy of Fluvial Systems and Why it is Essential to Compliance With The Legacy Rule Revisions to CCR Regulations.**

» [Mr. Colin Plank](#), Dr. Mike Shultz, Mr. James Feild, Mr. Wayne Weber

3pm **Approaches for Low-Impact Groundwater Remediation**

» [Mr. Tim Grant](#), [Mrs. Kathy Webb](#), Mrs. Tammy Jett, Mr. Bill Miller, Mr. Bruce Hensel

1pm **Landfill and Pond Issues 5 - Landfill and Pond Issues 6**

*Marksberry Room*

Chaired by: Mr. Andrew Colby

1pm **How Sustainable is Your Coal Ash Cover System?**

» [Mr. Marc Theisen](#)

1:30pm **The Overall Process of Beneficially Using Bottom Ash as Landfill Protective Cover, an Engineer's Perspective**

» [Mr. Ryan Doyle](#)

2pm **INTERIM PROTECTION OF CCR LANDFILL BOTTOM LINER SYSTEM – CASE STUDY**

» Mr. Jarrett Beach, [Mr. Kevin Resnik](#), Mr. Steven Turner

2:30pm **Alternate Liner Demonstration (ALD) for CCR Surface Impoundment**

» [Mr. John Seymour](#), Mr. Mike Coram, Dr. Clinton Carlson, Mr. Isaiah Vaught, Mr. Jesse Varsho

3pm **Evaluating Surface Impoundments Closure by Removal and Closure in Place Options**

» [Mr. Rick Buffalini](#)

2:30pm **Panel Discussion - 'Water Removal and Treatment Technology'**

*Adams Room*

Chaired by: Mr. James Feild

2:30pm **Water Removal and Treatment Technology Panel Discussion.**

» [Mr. Wayne Weber](#), [Mr. Max Swoboda](#), [Mr. Gregory Landry](#), [Mr. Andy Scherff](#), Mr. James Feild

3:30pm **Refresher Break**

*Exhibit Hall C*

3:45pm **Exhibit Hall Breakdown**

*Exhibit Hall A, B, C*

6pm **WOCA 2024 Off-Site Reception**

*Grand Rapids Public Museum*

Chaired by: Alyssa Barto and Brooke Pirmann and Dave Melanson



## Thursday, 16 May

7am **Breakfast and Registration**  
*Outside of Ramme*

8am **Landfill and Pond Issues 7 -  
Landfill and Pond Issues 7**  
*Caylor Room*  
Chaired by: Dr. Jeffrey Kuhn

8am **Electrical Leak Location (ELL) - Case Study**  
» [Mr. Andrew Colby](#)

8:30am **Chimney Drain Construction Lessons Learned**  
» [Mr. Jason Thaxton](#)

9am **Comparative Analysis of Predicted vs. Observed Leachate  
Generation Rates in Three Coal Combustion Residual Landfills**  
» [Mr. John Trast](#), Mr. Andrew Schwoerer, Mr. Eric Kovatch

9:30am **Conventional or Bentonite-Polymer GCLs for Coal Combustion  
Product Leachates?**  
» [Mr. Yu Tan](#), Dr. Craig Benson, Mr. Jimmy Youngblood

8am **Geotechnical 4 -  
Geotechnical 4**  
*McKinley Room*  
Chaired by: Mr. John Seymour

8am **Variable Rate Cone Penetration Testing in Hydraulically Placed Fly  
Ash Deposits**  
» [Mr. Andrew Fuggle](#), Mr. Longde Jin, Mr. Mark Taylor

8:30am **Modifying of expansive clay soils using alkali activated ESKOM  
legacy ash**  
» [Mr. Cyril Attwell](#), Ms. Phenyo Mvuyana, Dr. Kelley Reynolds-Clausen

9am **Dewatering Pilot Tests for Geotechnical Investigation**  
» [Mr. Gregory Landry](#)

9:30am **Navigating through Geochemical Modeling Uncertainties Related  
to Site Management and Cleanup Decisions**  
» [Mr. Scott Hense](#)

8am **Project Specific Cases 3 -  
Project Specific Cases 3**  
*Cain Room*  
Chaired by: Ms. Cassie Dumoulin

8am **Multi-faceted approach for CCR Pond dewatering and  
depressurization-A Case Study**  
» [Mr. Cleveland Tarp](#), Mr. Christopher Jones, Mr. Shawn Coughlin, Mr. Tom Holden

8:30am **Allen Fossil Restoration Project Update**  
» [Mr. Danny Stephens](#), [Mr. Bradly Toth](#), [Mr. Tim Moore](#)

9am **Design, CQA, and Legacy Rule Considerations for a Multi-phased  
CCP Unit Closure**  
» [Mr. Brendan Purcell](#), Ms. Brittany Bradley, Mr. Jason Obermeyer

9:30am **Coal Clinker Ash Transforming Influence on Carbon Content of  
Sandy Soil**  
» [Ms. Agnes Dube](#), Mr. Mutsa Muhambi, Dr. Mitsuru Tsubo, Dr. Tsugiyuki Masunaga, Dr. Eiji Nishihara

8am **Cement and Concrete 4 -  
Cement and Concrete 4**  
*Manz Room*  
Chaired by: Mr. Russell Stapp

8am **Compressive Behavior of Various Mortar Mixes Containing  
Synthetic Lightweight Aggregate**  
» [Prof. Chris Swan](#)



Continued from **Thursday, 16 May**

8:30am **Pore Solution-Based Innovative Approach for Evaluating the Effectiveness of Conventional and Alternative SCMs to Mitigate ASR**

» [Prof. Anol Mukhopadhyay](#)

9am **Long-Term Conductivity Studies of Low Permeability Concrete containing Fly Ash**

» [Dr. Kyle Stanish](#), Dr. Neal Berke, Mr. Ali Inceefe

9:30am **Nano-Modified Fly Ash-Based Geopolymer Concrete Filled CFRP Tube Composite: Mechanical Model and Life Cycle Assessment**

» [Dr. Zhipeng Li](#), Dr. Xianming Shi

8am **CCP Storage and Management 2 - CCP Storage and Management 2**

*Kruger Room*

Chaired by: Mr. Kory Anstead

8am **Cost-effectively Storing Bulk CCPs in Concrete Domes**

» [Mr. Zac Fillmore](#), Mr. Ted Parkinson

8:30am **Beneficial Reuse of Fly Ash Harvested from Historic Onsite Sources**

» [Mr. Todd Stong](#), Mr. Craig Schuettepelz, Mr. Ryan Frank, Mr. Shane Stockdill

9am **CCR Unit Closure 2024 – Engineering and Construction Management Straight Talk**

» [Mr. Don Fuller II](#), [Mr. Alan Casaday](#)

9:30am **Survey Techniques Used to Monitor Closed CCR Storage Facilities**

» [Mr. Max Cange](#), Mrs. Rachel Combs, Mr. Steve Shamblin, Mr. Jamey Dotson

8am **Rare Earth Elements 2**

*Ramme Room*

Chaired by: Mr. Claudio Arato

8am **Critical Mineral Relationships in Global Coal Ash**

» [Dr. Denise Levitan](#)

8:30am **COMPARISON OF THE CONCENTRATION OF REE & LITHIUM IN COAL ASH COLLECTED FROM IMPOUNDMENTS IN THE SOUTHEASTERN UNITED STATES**

» [Mrs. Kalyn Tew](#), Dr. Rona Donahoe

9am **Ionic liquid-based extraction and separation for recovery of rare-earth elements from coal fly ash**

» [Ms. Ting Liu](#), Prof. Ching-Hua Huang

8am **Groundwater and Environment 9 - Groundwater and Environment 9**

*Adams Room*

Chaired by: Mr. Johnathan Ebenhack

8am **Integrating the Geochemical Conceptual Site Model and Advanced Statistics to Evaluate Remedy Response and Position for Adaptive Management**

» [Ms. Shannon Zahuranec](#), Dr. Allie Wyman-Feravich, Mr. James Jonas, Dr. Tom Meuzelaar

8:30am **Managing Unexpected Outcomes from Remediation in Fractured Bedrock Geological Settings – How a Revision in the Conceptual Site Model Helped Resolve Unforeseen Conditions**

» [Dr. Rong Yu](#)

9am **Subsurface Hydraulic Studies and Modeling to Support Injection Treatment and Hydraulic Containment at Impacted Coal Combustion Product (CCP) Sites**

» [Mr. Alexander Macbeth](#), Mr. Mike Gefell, Dr. Ali Meyal, Mr. Chuck Pippin



Continued from Thursday, 16 May	
9:30am	<p><b>Geochemical Assessment to Support Evaluation of Remedy Options at CCR Units</b>                      » <a href="#">Mr. Jim Finley</a>, Mr. Paul Thomas, Mr. John Griggs</p>
10am	<p><b>Coffee Break</b>                      Outside of Ramme</p>
10:30am	<p><b>Groundwater &amp; Environment 11 - Groundwater &amp; Environment 11</b>                      Caylor Room                      Chaired by: Dr. Dimitri Vlassopoulos</p>
10:30am	<p><b>Subtle Geochemical Adjustments in Native Aquifer Soils – In Situ Groundwater Treatment Strategies for Cobalt at Coal Combustion Residual Sites</b>                      » <a href="#">Mr. David Collins</a>, Mr. Jim Finley</p>
11am	<p><b>From Farm to Ash: Deploying an Existing Economical Boron Solution to CCR Groundwater</b>                      » <a href="#">Dr. Ben Amos</a>, Dr. Hariprasad Parthasarathy, Mr. Paul Wegner, Mr. Peter Schratz</p>
11:30am	<p><b>EPRI Research on Innovative Techniques for Alternative Source Demonstrations</b>                      » <a href="#">Mr. Bruce Hensel</a>, Dr. Charles Cravotta III, Mr. Michael Pribil, Dr. Christopher Bagwell, Mr. R. Jeffrey Davis, Mr. Jared Carte, Mr. Danny Rutherford, Dr. Frederick Day-Lewis, Ms. Melanie Edwards</p>
10:30am	<p><b>Landfill and Pond Issues 8 - Landfill and Pond Issues 8</b>                      McKinley Room                      Chaired by: Mr. McKhenzy Welch</p>
10:30am	<p><b>Coal Ash Landfill Leachate Systems – Design and Treatment</b>                      » <a href="#">Mrs. Christine Harris</a>, Mr. Rob Orlando</p>
11am	<p><b>SINGLE-ENDED (BLIND) DIRECTIONAL WELLS FOR ASH BASIN DEWATERING</b>                      » <a href="#">Mr. David Bardsley</a>, Mr. Dan Ombalski, Mr. Brian Shinall, Mr. Michael Thornbrue</p>
10:30am	<p><b>Beneficiation and Processing 5 - Beneficiation and Processing 5</b>                      Cain Room                      Chaired by: Ms. Sheryl Smith</p>
10:30am	<p><b>Harvesting and Beneficial Use: Voluntary, Consensus Standard Developed by ASTM E50.03</b>                      » <a href="#">Mr. Benjamin Gallagher</a>, Ms. Abigail Calmes, Mr. William Petruzzi</p>
11am	<p><b>Using Interim Storage to Better Align Harvesting and Beneficiation Timelines</b>                      » <a href="#">Mr. Ethan Bond</a></p>
10:30am	<p><b>Emerging Technologies 5 - Emerging Technologies 5</b>                      Manz Room                      Chaired by: Mr. Travis Clark</p>
10:30am	<p><b>Exploring Non-invasive High-Resolution Geophysical Site Characterization Methods for Delineation of Coal Ash</b>                      » <a href="#">Mr. Colin Plank</a>, Dr. Mike Shultz, Mr. James Feild</p>
11am	<p><b>Total Ash and Brine Water Waste Utilisation</b>                      » <a href="#">Mr. Maroun Rahme</a></p>
10:30am	<p><b>Project Specific Cases 4 - Project Specific Cases 4</b>                      Kruger Room                      Chaired by: Mr. Cleveland Tarp</p>
10:30am	<p><b>Leveraging Data to Build an Effective Quality Assurance Program</b>                      » <a href="#">Ms. DEANNA AUNGST</a>, Ms. Danielle Coles</p>



Continued from **Thursday, 16 May**

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| 11am    | <b>EPA's Updated Toxicity Criteria for Arsenic: Implications on Coal Ash Sites</b><br>» <a href="#">Mr. Todd Bernhardt</a> , Mr. Jay Peters   |
| 11:30am | <b>"Strategic Workforce Solutions in the Coal Ash Industry: Navigating Talent Challenges for Consultants, Civil Companies, and Utilities"</b><br>» <a href="#">Mr. Stuart Keeter</a>              |
| 10:30am | <b>Groundwater and Environment 10</b><br><i>Ramme Room</i><br>Chaired by: Mrs. Arica DiTullio   |
| 10:30am | <b>Data Quality Assessment of a Long Running QA Program – The Domino Effect of a Pandemic</b><br>» <a href="#">Ms. Amanda Cover</a> , Mr. Rock Vitale, Ms. Jennifer Gable, Ms. Veronica Barredo   |
| 11am    | <b>High Dimensional Data Analysis and Visualization to Demonstrate Compliance</b><br>» <a href="#">Ms. Alex Eklund</a>  |
| 11:30am | <b>Unlocking Insights: Advanced Statistical Methods for Groundwater Geochemical Fingerprinting at Coal Combustion Residuals Sites</b><br>» <a href="#">Dr. Ali Akbari</a> , Ms. Allison Kreinberg |